# IEEE P802.15 Wireless Personal Area Networks

Project	IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)		
Title	Proposed changes to draft recommended practice		
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Abstract	This contribution proposes changes to the draft recommended practice version D04 March 1, 2002.		
Purpose	To make some changes to the draft now rather than in working group letter ballot comments		
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Submission Page 1 David Cypher, NIST

This contribution contains a list of proposed changes to the draft recommended practice version D04, March 1, 2002.

Requested change #1

Replace definition 3.1.3 with

**Collaborative coexistence mechanism** - A method for reducing the interference of one wireless system, which is performing a task, on another different wireless system, that is performing its task, by exchanging information with the other wireless system.

Requested change #2

Replace definition 3.1.12 with

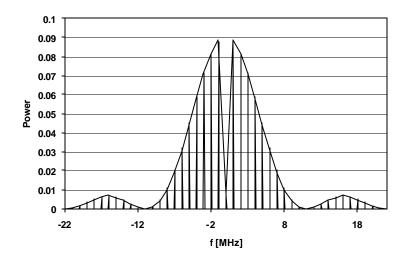
**Non-collaborative coexistence mechanism** - A method for reducing the interference of one system, which is performing a task, on another different wireless system, that is performing its task, without exchanging information with the other wireless system.

Requested change #3

Add the following text to the end of the current definition of 3.1.2: "while performing their tasks."

Requested change #4

Replaced Figure 7, page 22, "Power spectrum of the Barker code" (barkspec2.eps) with a new plot that more clearly shows the null at the center frequency.



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Requested changes #5 - 9 are only EDITORIAL changes that did not make the deadline for the release of D04.

## Requested change #5

Replaced figure 9, page 25, (bt802curve12.eps) with a plot of the same data made in Excel.

## Requested change #6

Replaced figure 10, page 26, (cckawgn2.eps) with a plot of the same data made in Excel.

## Requested change #7

Replaced figure 11, page 27, (ccicckcurve2.eps) with a plot of the same data made in Excel.

## Requested change #8

Replaced figure 12, page 28, (awgn802onbt2.eps) with a plot of the same data made in Excel.

## Requested change #9

Replaced figure 13, page 29, (btcoh802bt2.eps) with a plot of the same data made in Excel.

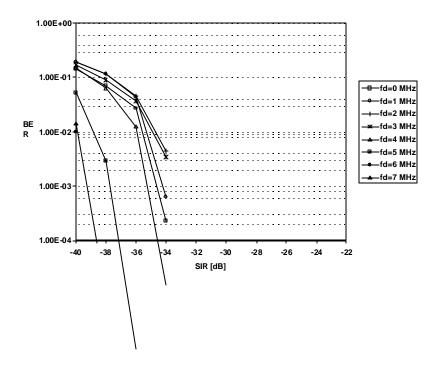
## Requested change #10

Replaced figure 39, page 57, "BER performance of 1 Mbit/s without an interference" with a plot of the same data made in Excel. It is suggested that figure 39 be removed and reference figure 9 as the data is the same.

#### Requested change #11

Replaced figure 40, page 58, "BER performance of 1 Mbit/s adjustable transversal filtering" with a plot of the same data made in Excel.

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#### Requested change #12

Move the third paragraph of clause 5.4, page 18 Physical layer simulations to subclause 5.4.1, page 19 IEEE 802.15.1 system model. This paragraph begins "The Bluetooth system operates at a channel bit rate of 1 Mbit/s. The modulation is Gaussian frequency shift keying ..."

#### Requested change #13

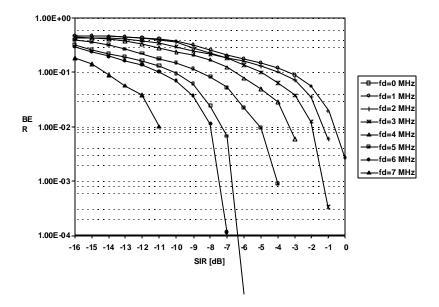
Move the fourth paragraph of clause 5.4, page 18 to subclause 5.4.2, page 21, 802.11b system model. This paragraph begins "The 1 and 11 Mbit/s modes of the IEEE 802.11b standard are implemented. The first rate is achieved by using differential BPSK ..."

#### Requested change #14

The following request is dependent upon the agreement to remove the 2 and 5.5 Mbit/s information,

since not all clauses could be completed for version D04. Therefore this requested figure is at the moment for information (i.e., we now have results for 2 Mbit/s 802.11). When and if such time that it is agreed that the draft will have 2 and 5.5 Mbit/s information, then the request will be valid.

Add a new figure showing BER performance for IEEE 802.11 at 2 Mbit/s with Bluetooth interference to clause 5.4.3, after figure for 1 Mbit/s and before 11 Mbit/s.



#### Requested change #15

Add the following text to precede the Figure added in change request #14 for 2 Mbit/s

Figure XXX shows the performance of the 2 Mbit/s 802.11b system in the same environment. The use of DQPSK modulation doubles the bit rate, but makes the BER worse by about 3 dB. However, the packet transmission time is decreased due to the higher bit rate, and, therefore, the system performance may improve.

Requested Change #16

Add to clause 5.4.3 end of first sentence "... is given." : ", in Figure XXX."

Requested Change #17

Change from clause 5.4.3 third sentence "Figure XXX" with "the figure"